

8 [receiving programming communication instructions] inputting a programming
9 schedule designating for each [unit] of a plurality of scheduled units of television
10 programming at least one [from the group consisting] of:

11 (a) an output channel to be used in communicating said unit of television
12 programming; and

13 (b) the time said unit of television programming is to be communicated;
14 [and]

15 storing selected scheduled units of said television programming received by said
16 station from the remote programming source; and

17 communicating each scheduled unit of television programming from said
18 transmission station to at least one subscriber according to said programming schedule
19 [communication instructions].

20 Please add the following new claims.

1 *Sub B3* 2. The method of claim 1 wherein said step of storing comprising the steps of:
2 selecting a specific unit of programming;
3 selecting a specific storage location;
4 inputting said selected unit to said selected location; and
5 storing said selected unit of programming at said selected location.

1 3. The method of claim 1 wherein said station comprises a plurality of storage
2 devices, said step of storing comprising the steps of:
3 selecting a specific storage device;
4 inputting television programming to said selected storage device; and
5 storing said television programming in said selected storage device.

1 4. The method of claim 1, wherein said step of communicating comprises the steps
2 of:
3 selecting each scheduled unit of programming to be communicated from:

4. (a) units of television programming received by said station from a remote
5 programming source and requiring immediate communication upon reception by said
6 station; and

7 (b) units of television programming stored at a local programming source,
8 said local programming source comprising a television programming storage device
9 located at said station for storing units of programming; and

10 communicating each of said selected units of television programming from said
11 transmission station to at least one subscriber according to said programming schedule.

12 *no cont* *Sub 134* 5. A method of controlling at an intermediate television transmission station the
13 communication of television programming from a programming source to a subscriber,
14 said programming source comprising at least one of a local programming source and a
15 remote programming source, said station having a computer for controlling the storage
16 and communication of television programming, said method comprising the steps of:

17 receiving television programming from said remote television programming
18 source;

19 selectively inputting information received from said remote television
programming source to the computer;

storing selected units of said television programming received by said station from
said remote programming source;

communicating units of television programming from said transmission station to
at least one subscriber according to a programming schedule; and

said programming schedule designating for each of a plurality of scheduled units
of television programming at least one of:

(a) an output channel to be used in communicating said scheduled unit of
television programming; and

(b) a time said scheduled unit of television programming is to be
communicated.

6. The method of claim 5 wherein said step of inputting further comprises the
steps of:

3 selecting a specific interval of time;
4 selecting a specific television programming transmission; and
5 inputting information of said selected transmission during said selected time
6 interval to said computer.

1 *Sub B5* 7. The method of claim 5 wherein said station comprises a plurality of receivers
2 for receiving television programming and control instructions from said programming
3 sources, said step of selectively inputting comprising the steps of:
4 selecting a specific one of said receivers; and
5 inputting said control instructions received by said selected receiver to said
6 computer.

1 8. The method of claim 5 wherein said scheduled units of programming
2 communicated from said transmission station to said at least one subscriber are selected
3 from:

4 (a) units of programming being received at said transmission station from a
5 remote programming source; and

6 (b) units of television programming stored at a local programming source, said
7 local programming source comprising a television programming storage device located at
8 said station for storing units of programming.

1 9. The method of claim 5 and further comprising the step of logging the
2 communication of a plurality of units of programming from said transmission station, said
3 programming being communicated to one or more subscribers.

1 10. A method of controlling at an intermediate transmission station the
2 communication of television programming from a television programming source to a
3 subscriber, said television programming source being one of a local programming source
4 and a remote programming source, said method comprising the steps of:
5 receiving television programming from a remote television programming source;

6 receiving a plurality of control signals from a remote programming source, each
7 said control signal designating a unit of television programming to be communicated to a
8 subscriber;

9 identifying in response to each said control signal the unit of programming
10 designated by said control signal from:

11 (a) units of programming being received at said transmission station from a
12 remote programming source; and

13 (b) units of programming stored at a local programming source, said local
14 programming source comprising a programming storage device located at said television
15 transmission station;

16 communicating each said identified unit of television programming to the
17 subscriber based upon a predetermined condition.

A2
cont
1 11. The method of claim 10 wherein said step of communicating comprises the
2 step of communicating each identified unit of programming to the subscriber according
3 to a programming schedule, said programming schedule designating at least one of a
4 time and a channel for communicating each said identified unit to the subscriber.

1 12. The method of claim 11, wherein said step of identifying further comprises the
2 steps of:

3 comparing one of said plurality of control signals to said programming schedule;
4 identifying based on said programming schedule a source of the unit of
5 programming designated by said one control signal as being one of:

6 (a) units of programming being received at said intermediate transmission
7 station from a remote programming source; and

8 (b) units of programming stored in said storage device.

Sub B6
1 13. The method of claim 10, wherein said step of communicating comprises the
2 step of communicating each identified unit of programming to the subscriber according
3 to one of said plurality of control signals, said one control signal further designating at

4 least one of a time and a channel for communicating said identified unit to the
5 subscriber.

1 14. The method of claim 10 further comprising the step of configuring a switch to
2 communicate each said identified unit of programming to an output channel, said switch
3 connecting to the output channel a selected one of:

4 (a) an output from a television programming receiver receiving said television
5 programming unit from the remote programming source; and

6 (b) an output from the storage device located at said transmission station.

1 15. The method of claim 14 wherein said station communicates a multichannel
2 television programming transmission to the subscriber, said method further comprising
3 the step of configuring said switch to communicate each said identified unit of
4 programming on a selected channel of said multichannel transmission.

A2
cont
Sub B7
1 16. The method of claim 10 further comprising the step of storing selected units of
2 said television programming received by said station in one of a plurality of storage
3 devices.

1 17. The method of claim 11, wherein said step of identifying comprises the steps
2 of:

3 comparing one of said control signals to data in said programming schedule, said
4 data identifying units of television programming;

5 determining based on said programming schedule whether the unit designated by
6 said one control signal is to be communicated immediately upon receipt to a subscriber,
7 or whether the designated unit is stored in the programming storage device and should
8 be output therefrom to a subscriber; and

9 identifying the storage location of the unit of television programming designated
10 by said one control signal if the unit designated by said one control signal is stored in the
11 storage device.

1 18. The method of claim 10 wherein there are a plurality of different types of said
2 control signals, and only some of said control signals designate units of programming.

1 19. The method of claim 10 and further comprising the step of logging the
2 transmission of units of programming from said transmission station to subscribers.

1 20. An apparatus located at an intermediate television transmission station for
2 controlling the communication of television programming from a plurality of
3 programming sources to selected subscribers, said programming sources comprising local
4 programming sources and remote programming sources, at least one of said local
5 programming sources comprising a television programming storage device, said apparatus
6 comprising:

7 a matrix switch having a plurality of input channels receiving television
8 programming from a plurality of remote television programming sources, and a plurality
9 of output channels;

10 a television programming storage device electrically connected to said matrix
11 switch for storing television programming for later communication, and for outputting or
12 playing television programming stored thereon;

13 a computer electrically connected to said switch and said storage device, said
14 computer receiving as a first input a programming schedule designating:

15 (a) a time to communicate each scheduled unit of programming to a
16 subscriber; and

17 (b) an output channel to be used for communicating each scheduled unit to
18 a subscriber;

19 said computer receiving as a second input a plurality of control instructions from
20 said remote programming sources, said control instructions being inputted to said
21 computer with information that designates for at least some units of programming at
22 least one of:

23 (a) the input channels on which said programming units will be received by
24 said switch for those units received from the remote programming sources; and

25 (b) the specific remote programming sources for the units of programming
26 received from the remote sources of programming; and

27 said computer configuring said switch and controlling said storage device to
28 communicate selected units of television programming previously stored in said storage
29 device and selected units of television programming being received at the input channels
30 of said switch to a subscriber via the appropriate output channels and at the appropriate
31 times according to said programming schedule and said control instructions.

1 21. The apparatus of claim 20, further comprising processor means for
2 determining the specific communication channels in which specific control instructions
3 are inputted to said switch, and said processor means for communicating channel
4 identification information to said computer.

A2 cont Sub B8
1 22. The apparatus of claim 20, wherein said storage device comprises a plurality
2 of television programming storage devices, said computer further configuring said switch
3 to select a specific storage device.

1 23. The apparatus of claim 20, wherein said computer further operates to control
2 said switch and said programming storage device to store selected units of programming
3 received at said switch that are designated by said programming schedule for storage or
4 delayed communication to a subscriber.

1 24. The apparatus of claim 20, wherein said computer operates to perform the
2 following steps:
3 comparing the control instructions to said programming schedule;
4 selecting a scheduled unit of programming from either received units of
5 programming or stored units of programming; and
6 controlling the storage device and the switch to communicate the scheduled unit
7 of programming to a subscriber according to said schedule.

1 25. The apparatus of claim 20, wherein said computer operates to perform the
2 following steps:

3 controlling said storage device to output selected units of television programming
4 from selected storage locations of said storage device to said switch; and

5 controlling said switch to communicate said selected units of television
6 programming from said selected locations of said storage device to selected output
7 channels of said switch, thereby to communicate said units to a subscriber according to
8 said schedule.

1 26. A method of controlling at an intermediate television transmission station the
2 communication of television programming from a plurality of programming sources to a
3 subscriber, said programming sources comprising remote programming sources and local
4 programming sources, at least one of said local programming sources comprising a
5 programming player/recorder located at said transmission station, said method
6 comprising the steps of:

7 receiving television programming from a plurality of remote programming sources;
8 inputting a programming schedule designating for each of a plurality of units of
9 television programming recorded on the programming player/recorder at least two of:

10 (a) program unit identification information identifying the unit of
11 programming;

12 (b) an output channel to be used in communicating said unit of television
13 programming; and

14 (c) the approximate time said unit of television programming is to be
15 communicated;

16 receiving control instructions from said remote programming sources;
17 determining the location on the player/recorder of a scheduled unit of
18 programming prior to its scheduled communication time; and

19 performing the following steps in response to receiving a predetermined one of
20 said control instructions:

21 (a) controlling the player/recorder to play said scheduled unit of
22 programming and thereby input the scheduled unit to an input of a switch; and

23 (b) configuring the switch to communicate the scheduled unit of
24 programming being played by said player/recorder to a subscriber via the output channel
25 designated by said programming schedule.

1 27. The method of claim 26 wherein said step of inputting a programming
2 schedule further comprises inputting said programming schedule from a remote source.

A2
cont
1 28. A method of controlling at an intermediate television transmission station the
2 communication of television programming from a programming source to a subscriber,
3 said programming source comprising at least one of a local programming source and a
4 remote programming source, the station having at least one input channel for receiving
5 units of television programming from a remote programming source, and at least one
6 output channel for communicating units of television programming to a subscriber, said
7 method comprising the steps of:

8 receiving television programming from a plurality of remote television
9 programming sources;

10 inputting a control instruction schedule designating for each of a plurality of
11 scheduled control instructions at least one of:

12 (a) an input channel for receiving the control instruction;

13 (b) an approximate time the control instruction will be received;

14 receiving control instructions according to said control instruction schedule;
15 communicating units of television programming to a subscriber according to a
16 programming schedule, each unit of programming being communicated to a subscriber
17 in response to receiving a scheduled control signal; and

18 said programming schedule designating for each of a plurality of units of
19 scheduled programming at least one of:

20 (a) an output channel to be used to communicate the unit of programming
21 to a subscriber; and

22 (b) an approximate time the unit of programming is to be communicated to
23 the subscriber.

1 29. The method of claim 28 wherein said step of communicating comprises the
2 steps of:

3 selecting each scheduled unit of programming to be communicated from:

4 (a) units of television programming received by said station from a remote
5 programming source and requiring immediate communication upon reception by said
6 station; and

7 (b) units of television programming stored at a local programming source,
8 said local programming source comprising a television programming storage device
9 located at said station for storing units of programming; and

10 communicating each of said selected units of television programming from said
11 transmission station to at least one subscriber according to said programming schedule.

A2
cont

1 30. The method of claim 29 wherein said step of receiving comprises the step of
2 receiving television programming from a plurality of remote television programming
3 sources over a plurality of input channels, said control instruction schedule further
4 designating an input channel for receiving each scheduled control instruction.

Sub B1

1 31. A method of controlling at an intermediate television transmission station the
2 communication of television programming from at least one programming source to a
3 subscriber, said at least one programming source comprising at least one of a local
4 programming source and a remote programming source, said station having a computer
5 for controlling the communication of television programming, said method comprising
6 the steps of:

7 receiving a plurality of programming transmissions from a plurality of remote
8 programming sources, each programming transmission comprising television
9 programming and control instructions;

10 inputting a programming schedule designating for each of a plurality of scheduled
11 programming units at least one of:

12 (a) an output channel to be used in communicating the scheduled unit of
13 programming;

14 (b) an approximate time the unit of scheduled programming is to be
15 communicated;

16 detecting said control instructions in said programming transmissions from said
17 programming sources and inputting said control instructions to said computer;

18 identifying that one of said control instructions is of a predetermined type; and

19 communicating a selected unit of television programming from said transmission
20 station to at least one subscriber in response to said one control instruction and
21 according to said programming schedule.

1 32. The method of claim 31, wherein said control instructions comprise a plurality
2 of different types of control instructions, said step of identifying comprises the step of
3 identifying an instruct-to-delay instruction, and said method further comprises the step of
4 storing a specific unit of programming in response to said instruct-to-delay instruction,
5 thereby allowing a delayed communication of the specific unit of programming.

A2
cont
1 33. The method of claim 32 wherein the unit stored in response to said instruct-
2 to-delay instruction is identified by said instruct-to-delay instruction.

3 34. The method of claim 32 wherein said unit stored in response to said instruct-
4 to-delay instruction is identified by being transmitted with said instruct-to-delay
5 instruction.

1 35. The method of claim 31, wherein said control instructions comprise a plurality
2 of different predetermined control instructions, said step of identifying comprises the step
3 of identifying an instruct-to-communicate instruction, and said step of communicating
4 comprises the steps of:

5 selecting a unit of programming from one of:

6 (a) units of programming stored in a storage device at said transmission
7 station; and

8 (b) units of programming being received at said transmission station from a
9 remote source; and

10 communicating said selected unit to a subscriber.

1 36. The method of claim 31, wherein said control instructions comprise a plurality
2 of different predetermined control instructions, said step of identifying comprises the step
3 of identifying an instruct-to-determine-input instruction, and said step of communicating
4 comprises the steps of:

5 selecting a unit of programming from one of:

6 (a) units of programming stored in a storage device at said transmission
7 station, said storage device being connected to an input of a switch; and

8 (b) units of programming being received at said transmission station from a
9 remote programming source, said received units being connected to an input channel to
10 the switch;

11 identifying in response to said instruct-to-determine-input instruction an input
12 channel from which to communicate said selected unit of programming to a subscriber;
13 and

14 communicating said selected unit from the identified input channel to a
15 subscriber.

A2
cont

1 37. The method of claim 31, wherein said control instructions comprise a plurality
2 of different predetermined control instructions, said step of identifying comprises the step
3 of identifying an instruct-to-determine-output instruction, and said step of communicating
4 comprises the steps of:

5 selecting a unit of programming from one of:

6 (a) units of programming stored in a storage device at said transmission
7 station; and

8 (b) units of programming being received at said transmission station from a
9 remote programming source;

10 identifying in response to said instruct-to-determine-output instruction an output
11 channel over which to communicate said selected unit of programming to a subscriber;
12 and

13 communicating said selected unit to a subscriber over the identified output
14 channel.

1 38. The method of claim 31, wherein said control instructions comprise a plurality
2 of different predetermined control instructions, said step of identifying comprises the step
3 of identifying an instruct-to-transfer instruction, and said step of communicating
4 comprises the steps of:

5 identifying an input channel from which to communicate a selected unit of
6 programming;

7 identifying an output channel over which to communicate said selected unit of
8 programming;

9 communicating a control instruction to a switch in response to said instruct-to-
10 transfer instruction;

11 configuring said switch in response to said control instruction to transfer said
12 selected unit of programming from said identified input channel to said identified output
13 channel.

A2
cont

1 39. The method of either of claims 32, 35, 36 or 37 wherein said step of
2 communicating further comprises the steps of:

3 communicating a control instruction to a switch;

4 configuring said switch in response to said control instruction to communicate
5 television programming from a selected input of said switch to a selected output of said
6 switch.

1 40. A method of controlling at an intermediate television transmission station the
2 communication of television programming from a television programming source to a
3 subscriber, said programming source comprising at least one of a remote programming
4 source and a local programming source, said method comprising the steps of:
5 receiving television programming from a plurality of remote television
6 programming sources;

7 receiving a plurality of control signals from at least one of said remote
8 programming sources and inputting each of said control signals to a computer together
9 with information designating at least one of:

- 10 (a) a unit of programming;
- 11 (b) a specific programming source; and
- 12 (c) a specific transmission channel;

13 identifying an output channel in response to receiving each of said control signals;
14 communicating a selected unit of television programming from said transmission
15 station to at least one subscriber according to a programming schedule and responsive to
16 identifying an output channel for each said unit; and
17 said programming schedule designating for a plurality of units of television
18 programming at least one of:

- 19 (a) an output channel to be used in communicating the unit of television
20 programming; and
- 21 (b) a time said unit of television programming is to be communicated to a
22 subscriber.

1 41. The method of claim 40, wherein said step of identifying comprises the step of
2 identifying output channels from one of:

- 3 (a) an output channel that communicates programming to a subscriber; and
- 4 (b) an output channel that communicates programming to a storage device.

1 Sub B10 42. The method of claim 40 wherein said station has a plurality of output channels
2 for communicating television programming to a subscriber, said step of communicating
3 further comprising the steps of:
4 communicating control instructions to a switch;
5 configuring said switch to selectively communicate units of television programming
6 to identified ones of said plurality of output channels.

1 43. The method of claim 40 wherein said station has a plurality of storage devices
2 with each storage device receiving television programming on a separate channel, said
3 step of identifying further comprising the steps of:
4 selecting specific ones of said plurality of storage devices;
5 identifying the specific output channels for communicating television programming
6 to said selected ones of said storage devices.

1 *Sub B11* 44. The method of claim 42 and further comprising the step of logging each
2 identified output channel.

1 *A2 cont* 45. A method of controlling at an intermediate television transmission station the
2 communication of television programming from a programming source to a subscriber,
3 said programming source comprising at least one of a local programming source and a
4 remote programming source, said station having a computer for controlling the
5 communication of programming according to a predetermined programming schedule,
6 said method comprising the steps of:

7 receiving a plurality of programming transmissions from at least one remote
8 programming source, each programming transmission comprising programming and
9 control signals;

10 inputting a predetermined programming schedule designating for each of a
11 plurality of programming units at least two of:

12 (a) program unit identification information identifying the unit of
13 programming;

14 (b) an output channel to be used in communicating the unit of
15 programming to a subscriber; and

16 (c) an approximate time to communicate the unit of programming;

17 detecting said control signals in said programming transmissions from said
18 programming sources and inputting said control signals to said computer;

19 identifying an instruct-to-determine control signal;

20 in response to said step of identifying, said computer determining the times said
21 units of programming are to be communicated to a subscriber; and

22 communicating units of programming from said transmission station to at least
23 one subscriber in response to said instruct-to-determine signals and according to said
24 programming schedule.

25
1 46. The method of claim 45 wherein, in response to each of said instruct-to-
2 determine signals, said computer determines a time from:

- 3 (a) an immediate time; and
4 (b) a delayed time.

A22
cont
1 47. The method of claim 45 wherein, in response to each of said instruct-to-
2 determine signals, said computer selects and communicates a unit of programming from:

- 3 (a) units of television programming received at a television receiver from a
4 remote programming source; and
5 (b) units of television programming stored at a local programming source, said
6 local programming source comprising a programming storage device.

1 ~~48. The method of claim 45 further comprising the steps of:~~
2 logging the determined times of communicating units of programming to a
3 subscriber; and

- 4 logging for each specific determined time at least one of:
5 (a) a program unit identification for identifying the communicated unit;
6 and
7 (b) the specific output channel communicating a unit of television
8 programming.

Sub B12
1 49. The method of claim 4, 8, 15, 17, 26, 29, 38, 42 or 48 further comprising the
2 step of identifying a specific unit of television programming on the basis of program unit
3 identification information embedded in said unit of television programming.

1 50. The method of claim 4, 8, 15, 17, 26, 29, 38 or 42 further comprising the step
2 of logging for each unit of television programming communicated to a subscriber at least
3 two of:

4 (a) program unit identification information for identifying the communicated unit;

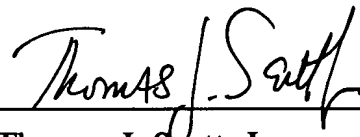
5 (b) a specific time when the unit is communicated to a subscriber; and

6 (c) a specific output channel over which the unit of programming is communicated
7 to a subscriber.

A2
concl
8 51. The method of claim 4, 38, or 48 wherein said step of inputting a
9 programming schedule comprises the step of receiving the programming schedule from a
10 remote programming source.

11 52. The method of claim 8, 17, 29 or 42 further comprising the step of receiving
12 said programming schedule from a remote programming source.

Respectfully submitted,



Thomas J. Scott, Jr.

Reg. No. 27,836

Date: November 29, 1993